**Company Background**
- Country's largest railroad; founded by Abraham Lincoln
- $19.5 Billion in Revenues
- 46,000 employees
- Operates 32,000 miles of track in 23 states
- 8,400 locomotives

"We believe that when you’re part of the American landscape you protect it. That’s why protecting the environment is a guiding principle at Union Pacific, whether it’s by increasing fuel efficiency, reducing air emissions and energy consumption, or recycling used materials.", Union Pacific, http://www.uprr.com

**S-Lab Question 1:** How can Union Pacific better manage its waste stream?

**Current waste diversion efforts:**
- UP currently diverts 75% of total waste
- Diversion opportunity for remaining 250,000 tons
- Waste is generated all across the Western United States

**Solution 1:** Training
- Incorporate waste management/sustainability module in current employee training (build common foundation of knowledge)

**Solution 2:** Regional metrics
- Define cross-service unit sustainability metrics (build regional ownership)

**Solution 3:** Local champions
- Appoint local champions, form working groups (build individual ownership, develop local ideas)

**Solution 4:** Communication
- Diversify communication channels (beyond Intranet and newsletters); expand email (keep waste management on employee radar screen)

**Current employee engagement efforts:**
- Basic awareness-building (Intranet, newsletters)
- Employee feedback
- Special events

**Next step 1:** Incorporate waste management/sustainability module in current employee training (build common foundation of knowledge)

**Next step 2:** Define cross-service unit sustainability metrics (build regional ownership)

**Next step 3:** Appoint local champions, form working groups (build individual ownership, develop local ideas)

**Next step 4:** Diversify communication channels (beyond Intranet and newsletters); expand email (keep waste management on employee radar screen)

**S-Lab Question 2:** How can Union Pacific effectively engage its workforce in waste management?

**Solution:** Reuse
- Use PCS for construction site-fill where approved

**Solution:** Recycle
- Capture/process/sell using specific patented processors

**Solution:** Segregate/sell organics (coal, grain) to 3rd party producers

**Solution:** Reuse/Recycle
- Sell/give pallets to regional pallet distributors for reuse, resale or for processing into mulch or pelletized wood before resale

**Waste Streams:**
- **Waste Stream 1:** Pallets & Wood
  - Solution: Reuse/Recycle
- **Waste Stream 2:** Petroleum Contaminated Soil (PCS)
  - Solution: Reuse
- **Waste Stream 3:** Yard Sweepings
  - Solution: Recycle
- **Waste Stream 4:** Sludge from wastewater treatment plants
  - Solution: Reuse

**Sustainability Lab 2013**